



**Monthly Drought Update
December 15, 2015
San Luis Obispo County**

Note: Information provided in this update varies by date.

CURRENT CONDITIONS

U.S. Drought Monitor Status:

The latest U.S. Drought Monitor report released December 3, 2015, indicates San Luis Obispo County remains at the **D4 – Exceptional Drought intensity rating**. Approximately 92% of the state remains at a level D2 – Severe Drought or worse with 45% of the state in a D4 – Exceptional Drought intensity rating.

San Luis Obispo County Precipitation Totals (in inches):

Sub-Region	Area / Rain Station	Average Annual Rainfall	2015-16 Water Year (July 2015-June 2016)	
			Cumulative Total	% of Total Average
North Coast	Cambria (ALERT #717)	22.0	2.60	12%
	Whale Rock Reservoir (County Site #166.1)	16.0	2.38	15%
Inland	Paso Robles (County Site #10.0)	14.1	4.32	31%
	NE Atascadero (ALERT #711)	17.0	1.89	11%
	Atascadero MWC (County Site #34.0)	17.5	2.78	16%
	Santa Margarita (ALERT #723)	24.0	2.36	10%
	Salinas Dam (County Site #94)	20.9	2.45	12%
South Coast	SLO Reservoir (ALERT #749)	24.0	2.64	11%
	Lopez Recreation Area (ALERT #707)	23.0	2.53	11%
	West of Nipomo (CIMIS #202)	14.8	1.88	13%
	Nipomo East (ALERT #728)	18.0	1.30	7%

Note: This table contains provisional data from automated gauges and has not been verified. All units reported in inches. Report generated at 11:00am on 11/24/2015.

Near-term Outlook:

An El Niño (ENSO) Advisory continues in effect. Most models indicate that a strong El Niño will continue through the Northern Hemisphere winter 2015-16, followed by weakening and a transition to ENSO-neutral during the late spring or early summer. Due to the strongly positive ENSO signal in place, “rainy season” across California may finally live up to its name. A strong subtropical jet may take aim at Southern California, in particular, as was the case during the strong El Niño of 1997. That year was noted not only for the high number of storms, but also for their strength. South aspects bore the brunt of the strongest storms which brought flooding and mud and debris flows to much of the central coast and Southern California. Hillsides and lower elevations may be even more prone to flooding this year due to the poor condition of many fuels beds. The heavy dead fuel component covering the steeper terrain will be less effective in stabilizing hillsides.

Although the southern jetstream and associated storm track that are characteristic of El Niño winters are expected to bring some improvement of drought conditions to California, given the severity and longevity of the drought, it is unlikely to completely alleviate precipitation deficits and replenish reservoirs in just one season. The U.S. Seasonal Drought Outlook is calling for the drought to remain but improve throughout California if El Niño delivers rain as predicted.

Reservoir Levels (% of capacity):

Reservoir	% of Capacity	Current Acre Feet Storage
Nacimiento	18%	68,370
Whale Rock	36%	14,031
Lopez	29%	14,320
Salinas	13%	3,006

Source: www.slocountywater.org County of San Luis Obispo

STATE WATER

Status: The Department of Water Resources will announce projected water deliveries for 2016 in the first week of December. At the end of October 2014 San Luis Reservoir was at 19.3% of capacity and deliveries from the State Water Project were set at 20%. At the end of October 2015 San Luis Reservoir was at 17% capacity; initial delivery amounts are expected to be in the 20% range.

VULNERABLE WATER SYSTEMS

County Service Areas (CSA's)

Santa Margarita (CSA 23)

- Drought response level remains at ALERT status.
- Primary pumping is from shallow well No. 4; water is also being pumped from deep well No. 3 to reduce needs from well No. 4. State officials have also authorized the use of shallow wells 1 & 2 should the need arise.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.
- Staff is monitoring conditions for a potential status change to CRITICAL.
- The intertie with Atascadero Mutual Water Company (AMWC) is complete and ready for operation.

Shandon (CSA 16)

- Two wells currently provide all water to the Shandon community and continued to be monitored.
- Connection to the State Water Project is out to bid.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.

Cayucos (CSA 10A)

- Supply is available from Whale Rock and one on-site well. Staff has given a presentation to the Advisory Committee and business groups regarding conserving this supply.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.

Avila Valley (CSA 12)

- Adequate supply is available from Lopez and State water "carryover" water sources for this year and next.
- The Low Reservoir Response Plan for Zone 3 (the Lopez system) is in effect; municipal deliveries have been cut 10%, however, CSA12 continues to use than its full allocation and "bank" water for subsequent years.
- Evaluation of emergency drought mitigation options for all of Zone 3 (including CSA12) is underway, including use of PG&E Diablo Desalination.

Chorro Valley Institutions (CMC, Animal Services, Sheriff, County Operations, Camp San Luis, Cuesta College, County Office of Education)

- 2015 State water carryover water is available and being provided.
- The existing distribution system is being evaluated to assure water losses are minimized.
- CMC has completed their water treatment plant upgrade project.
- Discussions with City of San Luis Obispo to exchange Nacimiento for Whale Rock are being initiated if State Water is insufficient in 2016.

San Luis Obispo County Flood Control and Water Conservation District Systems

Zone 3 – Lopez Water Project (CSA12, Pismo Beach, Grover Beach, Arroyo Grande, Oceano)

- The Low Reservoir Response Plan for Zone 3 is in effect; municipal deliveries have been cut 10%.
- Downstream environmental and agricultural releases have been cut 9.5%.

Salinas Water Project – Salinas Reservoir (Santa Margarita Lake)

- The reservoir is at 12.6% capacity; City of San Luis Obispo is reliant on the Nacimiento and Whale Rock Reservoirs.

Nacimiento Water Project

- The Project operating at full annual allocation levels.

Non-County Operated

Cambria Community Services District

- Emergency San Simeon Creek Brackish Water Supply Project went online on January 20, 2015. The district is now seeking a permit to operate it permanently.

San Simeon Community Services District

- The CSD has a new well head salinity project to increase supplies in the current prop 84 grant round. DWR released draft funding recommendations and the San Luis Obispo IRWM region is recommended for 75% of grant request.

Heritage Ranch Community Services District

- The Nacimiento River is the only available water source for the community of Heritage Ranch. An emergency inter-tie will be funded with emergency grant funds and construction on the inter-tie is underway.

Rural Paso Robles residents

- Continuing to identify water-trucking options and examine outreach efforts. See County Drought Conditions and Water Conservation Website for drought relief update information.

IMPACTS

Agricultural Impacts:

Staff from the County Department of Agriculture/Weights and Measures and the San Luis Obispo County office of the University of California Cooperative Extension (UCCE) continue to collaborate to informally contact agricultural producers to learn about on-the-ground conditions and impacts from the drought.

Agricultural conditions continue to deteriorate due to lack of moisture. The timing of recent rainfall was beneficial for rangeland conditions. Concern about the prediction of an El Nino weather condition which may bring abundant rain to the central coast is high as this may cause soil erosion, and damage to culverts and roads. An El Nino weather pattern is also alarming for managers of deteriorated rangeland areas, with potential impacts dependent on the severity of the predicted El Nino. Producers are in a wait-and-see pattern, with a close eye on weather predictions.

Agricultural Assistance - Update from the USDA Farm Service Agency

According to staff at the USDA Farm Service Agency, the following programs are active in providing assistance. The programs are briefly summarized as follows:

LFP – Livestock Forage Disaster Program: provides payments for grazing losses. Because San Luis Obispo County continues in the D4 drought category, current eligibility is for 5 months of payments. Deadline to file is January 30, 2016 for 2015 payments.

EQIP – Environmental Quality Incentives Program (NRCS): provides funds for land conservation planning and implementation of conservation practices. This program provides cost-share funding through USDA – NRCS. Applications and approvals are ongoing.

NAP – Non-insured Crop Disaster Assistance Program: provides cash payments to producers of noninsurable crops when low yields, loss of inventory, or planting did not occur due to natural disasters. Producers who are insured through this program should file a notice of loss as soon as possible and are required to file within 15 days of the loss being apparent to be eligible for benefits.

Tree Assistance Program – covering Red Blotch Disease in vineyards and losses due to drought conditions if growers rehabilitate or replant orchards.

For information about the assistance programs, contact the USDA Farm Service Agency:

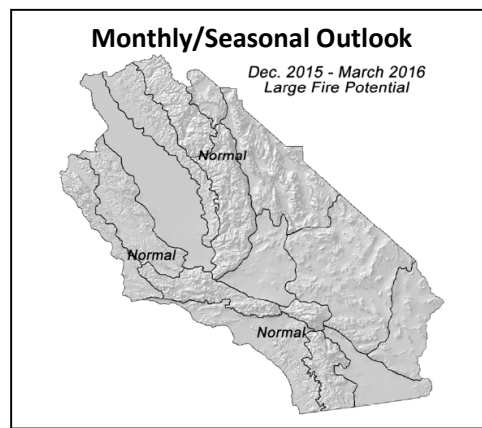
Templeton: (805) 434-0398 Ext 2.

Santa Maria: (805) 928-9269

Fire Danger:

Fire Danger

In 2015, CAL FIRE and the US Forest Service have responded to over 8,184 fires across the state, burning 825,720 acres. Although large fire potential has been reduced significantly by fall weather and precipitation in most areas, wildfires are still occurring and there have been over 155 fires in just the past two weeks. The Central Coast has received very little rainfall and is still vulnerable to wildfire. The monthly/seasonal outlook from Predictive Services, shown on the right, calls for normal large fire potential through March 2016.



Locally, starting on Monday December 7, 2015, CAL FIRE will reduce engine staffing from 12 wildland engines to 7. This is the first phase of the transition to “winter preparedness” staffing levels. Paso Robles Air Attack Base remains staffed with two tankers and one air attack. Two federal air tankers and one heli-tanker are no longer staffed.

With the transition to winter preparedness season, the annual backyard burn season will begin on December 7, 2015. The County-wide burn ban was rescinded on November 15, 2015. The backyard burn season indicates that burning may be conducted according to the Air Pollution Control District (APCD) burn program with no requirement for CAL FIRE burn permits.

Live Fuel Moisture (LFM)

(LFM is the moisture content of live vegetation expressed as a percentage of the oven-dry weight.)

LFM is the moisture content of live vegetation expressed as a percentage of the oven-dry weight. LFM values in the County have risen slightly in the past month but in most areas are still just above the critical level of 60. Due to a number of small but spaced-out rains, there is a green grass crop beginning to grow in most areas; however not nearly enough green grass yet to prevent the spread of wildfire. The Ventura County Fire LFM Table indicates an average LFM value of 57%, which is a slight increase from the previous value but still below critical and the historic average 69%. The Los Padres Intelligence fuel moisture table indicates a forest-wide LFM value of 65%, which is an increase of 2.5% from mid-November.

Dead Fuel Moisture

(The moisture content of dead organic fuels is another important component of the relative fire danger. As with LFM above, dead fuel moisture levels are a good indicator of how likely fuels are to ignite and how intensely they will burn. 100-hr fuel refers to vegetation between 1 and 3 inches in diameter and 1000-hr fuel is 3-6 inches. When the fuel moisture content is low, fires start easily and will spread rapidly.)

Many fuel beds in the County, particularly coastal sage scrub, have seen a dramatic increase in the percentage of dead fuel as a result of the prolonged drought. The current values are indicated as below average, but well above record lows.

Temperatures/Relative Humidity (RH)

(When combined with other factors influencing the fire environment such as wind, steep topography, and low fuel moisture levels, hot temperatures and low RH can significantly increase the fire danger by increasing fire initiation, spread rates, burning intensity, and difficulty of control.)

Above average temperatures are likely through the winter due to warm ocean temperatures.

Energy Release Component (ERC)

(ERC is an index related to how hot a fire could burn. It is directly related to the 24-hour, potential worst case, total available energy (BTUs) at the head of a fire. The ERC can serve as a good characterization of fire season as it tracks seasonal fire danger trends well. ERC has low variability, and is the best fire danger component for indicating the effects of intermediate to long-term drying on fire behavior.)

Cooler, shorter days have resulted in slight decreases in ERC values that are above average, but below record highs.

Forest and Range Impacts

Widespread tree mortality is plainly evident throughout the County. All tree species have been adversely affected by the drought. Thousands of coast live oaks of all sizes in all areas and at all elevations have died. The eucalyptus stands on the Nipomo mesa are showing a sharp increase in the number of dead trees and also in the number of live trees with dead crowns which substantially increases the amount of dead fuel loading available for fire. The area most severely impacted is the Cambria Monterey Pine Forest (CMPF). Already one of the most endangered native forests in the world, the CMPF has been further devastated by the drought. In addition to the major impacts to forest health, the resulting fire hazard has increased to the point where catastrophic stand-replacing fire is very likely. Hundreds of large dead hazard trees are poised to fall on homes, vehicles, and vital infrastructure. Solutions are available including dead tree removal, biomass removal, cogeneration, thinning, prescribed burning, tree planting, and invasive weed control. Implementing worthwhile solutions is extraordinarily challenging and requires a community based effort involving multi-agency cooperation. These cumulative impacts have created the current situation where approximately 40-50% of the overstory trees are dead or dying. In certain areas, mortality exceeds 90%. In addition to the major impacts to forest health, the resulting fire hazard has increased to the point where catastrophic stand-replacing fire is very likely.

CAL FIRE has created a web-based map viewer to allow Californians to participate in understanding and identifying the areas most impacted with tree mortality as a threat to life and property. This viewer shows areas of tree mortality mapped from 2012 through 2015 as well as assets important to life and property, such as roads, water supply infrastructure, and communications facilities. Where the tree mortality intersect an asset will be categorized as high priority. The viewer can be accessed at the following link: <http://frap.fire.ca.gov/projects/DroughtViewer>.

Grants:

The SLO Fire Safe Council (FSC) completed work on a grant awarded by PG&E to assist with hazard tree abatement work in Cambria. The work included the felling of over 400 hazard trees and the chipping of several hundred tons of slash. The FSC was also awarded a \$498,000 grant from the CAL FIRE Greenhouse Gas Reduction Fund (GGRF) to help improve forest health in Cambria. Another \$300,000 grant has been selected as the number one proposal from the State of California through the Western Forestry Leadership Coalition (WFLC WUI grants). The focus of this WFLC WUI grant will be to augment and improve fuelbreaks on the east side of Cambria.

Emergency Permits

The County is continuing to work to provide relief from hazard tree permitting requirements in Cambria to facilitate tree removal on the high number of affected parcels. The County Planning and Building Department approved an emergency hazard tree removal permit allowing Cambria residents to remove dead hazardous trees with a non-cost permit. The County Planning Director sent a letter to residents authorizing them to remove hazard trees under certain conditions which include contacting the Fire Department and having an inspection done and their trees marked by

Attachment 1

CAL FIRE. The Cambria Community Services District was also issued an Emergency Permit for removal of up to 300 dead trees on District property.

Forest Assessments

Forest assessments under the direction of Cal Poly forestry faculty have been initiated to quantify the extent of this issue and the results will be made known as soon as they become available. This research work will continue and will provide the foundation for all the work that will occur under the grants described above.

Economic:

In an effort to coordinate local and state response to drought impacts the following surveys are being utilized by the County:

Drought Business Impact Survey

The Labor and Workforce Development Agency (LWDA) and the Employment Development Department (EDD) developed a streamlined survey to report drought-related job impacts. Collecting "real-time" drought-related information is essential for the LWDA and the Governor's Drought Relief Task Force to identify the drought's impact on California's industries, employers, and workers. The survey, which collects information on drought impacts for employers allows the affected employer to report directly to the State, thereby, providing a level of confidentiality that business and industry need. A link to the new survey is available on the San Luis Obispo Workforce Development Board's website: www.SLOWorkforce.com.

Though the WIB is hearing that there are impacts, the county does not have any "reportable" impacts due to the State's requirements for reporting (i.e. specific business name, address, etc.).

Domestic Water Issues-Intake Form

The Governor's Drought Task Force created an online intake form for local, state, or tribal and federal agencies to document domestic water issues. The information is intended to inform and coordinate state response and mitigate drought impacts. Both agencies and individuals can complete the reporting form. Individuals with domestic water issues are encouraged to contact County Environmental Health at (805) 781-5544 or visit the state online reporting website at <https://mydrywatersupply.water.ca.gov/report/>.

STATE & FEDERAL KEY ACTION ITEMS FROM LAST MONTH

Governor Brown Issued Executive Order Intensifying State's Drought Response

On November 13, Governor Brown issued an Executive Order that calls for additional actions to build on the state's ongoing response to record dry conditions and assist recovery efforts from this year's devastating wildfires. The Executive Order also intensifies the state's drought response by extending emergency conservation regulations through October 2016, if drought persists through January, and streamlines project permitting that seek to capture stormwater from high precipitation events. The proclamation also directs \$5 million from the 2015 state budget to the State Water Board to help secure safe drinking water for small water systems.

COUNTY DROUGHT TASK FORCE KEY ACTION ITEMS FROM LAST MONTH

County Office of Emergency Services:

San Luis Obispo County OES continues to coordinate with the Governor's Office of Emergency Services (Cal OES) to provide updates on the drought situation, respond to specific information requests to Cal OES, and coordinate local emergency needs. County OES continues to participate in the statewide drought conference calls hosted by Cal OES. County OES continues to pursue information related to how the resulting Governor's orders related to tree mortality will be implemented. Cal OES Disaster Recovery Branch is working to create an FAQ document and a funding matrix. County OES will continue to follow up with Cal OES on this issue. During the November 16 conference call, County OES shared our local concerns and issues related to regulatory challenges to getting waterways and other areas cleared of vegetation.

Emergency Actions:

No new emergency actions have been taken specific to the drought in this reporting period.

County Facilities Usage & Conservation Actions:

The county has taken the following actions:

- Water Conservation: Water usage data for all facilities with water billing from a vendor has been entered into the Utility Manager system. Water usage status updates for the users in the Utility Manager system and the County Operations Center show a 31% reduction countywide in water usage in October 2015 from October 2013.
- Fixture Replacement: To date, staff has retrofitted 44 buildings with low-flow fixtures, saving an estimated 4,500 gallons per week.
- Leak Repair: Staff continues to identify and repair leaks to minimize water loss.
- County Standards for Construction Contracts: Staff is reviewing and updating County standards for plumbing fixtures, to include more specific language for lower water usage fixtures in facility construction contracts and purchase orders.
- County Airport: As previously reported, County Airport fire hydrants must be flushed periodically to maintain safe water for drinking due to chlorine levels. The Airport is making the water from hydrant flushing available for agricultural operations, construction, or other purposes. Please contact the Airport at (805) 781-5205 if interested in using this free water.

Drought Contingency Planning:

The Public Health Department, the Public Works Department, and CAL FIRE/County Fire continue to develop plans to ensure there is adequate supply of water for firefighting and domestic water use in the event that a community does not have enough water.

Water Purveyors GIS

Water purveyors GIS data contains the new vulnerability level field that was determined after assessing the results of a one-time voluntary 2014 survey questionnaire that was sent to both large and small water purveyors. The mapping of this data has been categorized by the assessed vulnerability levels which are Watch (green), Vulnerable (orange), Critical (red) and Pending Survey Results (blue) and is available for CalFire in a web map viewer. The link is on the home page under the County Drought Task Force heading of the SLO Cal Fire website <http://www.calfireslo.org/>

Dry Well Replacements

Environmental Health has been tracking dry well replacement applications since 2013 and the mapping of the sites is updated on a weekly basis. There are currently 80 applications received to date.

County Owned Water Wells

Environmental Health is actively working on compiling and site mapping of all county-owned well application documents to support county-wide projects.

Water Well Mapping

Environmental Health is actively working over the next year to map well construction and well destruction applications the department has on record.

County Public Outreach Actions:

Information regarding current and upcoming drought relief programs for rural homeowners has been placed on the County Drought Conditions and Water Conservation webpage. Rural Development, an agency of the United States Department of Agriculture (USDA), delivers a number of programs to help improve the quality of life in rural communities throughout the nation. These programs may also help rural communities, businesses and individuals impacted by California's ongoing drought conditions. For additional resources and information on applying for any of these programs, please visit <http://www.rurdev.usda.gov/ca> or the County Drought Conditions and Water Conservation webpage at http://www.slocounty.ca.gov/admin/Drought_Update.htm.

In an effort to raise awareness about water supply issues the County continues to examine multiple channels of communication for water conservation outreach efforts. Check out our water-saving tips, shareable water saving images, and customized Tweets and Facebook posts just for you to share and help us continue the SLO County culture of conservation at the following link: http://www.slocounty.ca.gov/admin/Drought_Update/water-conservation.htm

Attachment 1

To report drought-related concerns or for water conservations questions, call the County Water Conservation and Drought Hotline at (805) 781-4466.

DROUGHT RELATED WEBSITES FOR MORE INFORMATION

County of San Luis Obispo Drought Conditions and Water Conservation
(http://www.slocounty.ca.gov/admin/Drought_Update.htm)

State's Water Conservation Campaign; Save our Water
(www.saveourh2o.org)

California's Drought Information Clearinghouse; Drought.CA.Gov
(<http://ca.gov/drought/>)

California Department of Food and Agriculture; Drought information
(www.cdfa.ca.gov/drought/)

California Department of Water Resources; Current Water Conditions
(www.water.ca.gov/waterconditions/drought/)

California State Water Resources Control Board; Water Rights, Drought Info and Actions
(www.swrcb.ca.gov/waterrights/water_issues/programs/drought/index.shtml)

California Department of Public Health; Drinking Water CDPH Drinking Water Program
(www.cdph.ca.gov/programs/pages/dwp.aspx)

USDA Disaster and Drought Assistance Information; USDA Programs
(http://www.usda.gov/wps/portal/usda/usdahome?navid=DISASTER_ASSISTANCE)

UC Cooperative Extension Drought Information Resources; Drought Information Resources
(http://cesanluisobispo.ucanr.edu/Drought_Information/)

